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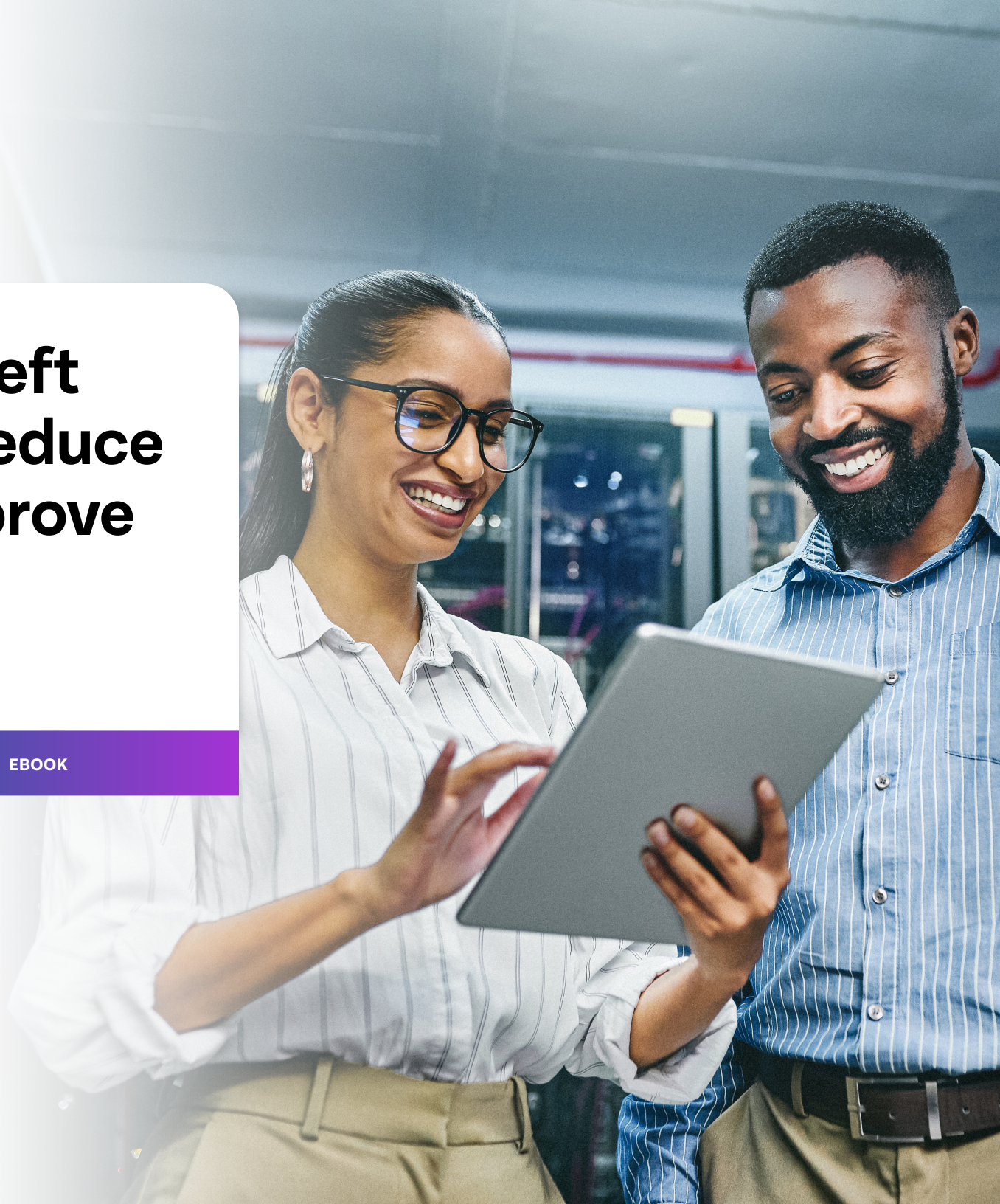
How to Shift Left Across IT to Reduce Costs and Improve Retention

EBOOK



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A Brief History of Shift Left

The concept of “shift left” came from the DevOps world, where discovering performance issues early in the development cycle – before they cause larger, entrenched problems downstream – is a core principle of the DevOps philosophy. Larry Smith coined the concept of “shift left testing” in Dr. Dobbs Journal in 2001.

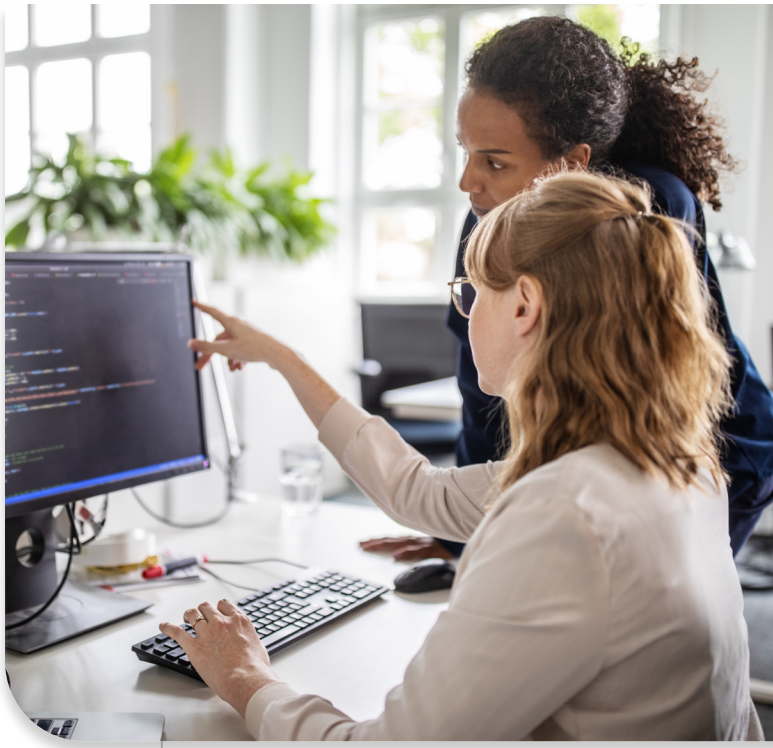
While this eBook won’t dive into the intricacies of shifting left in DevOps, in a nutshell, it means performing testing, quality control, and performance evaluations as early in the development process as possible. This prevents wasting time developing software with underlying issues, and thus, optimizes operations to save time, money, and effort.

Today, other areas of IT, like NetOps and the Service Desk, have seen the benefits their colleagues in DevOps have achieved and are looking to implement shift left concepts into their own workflows. But doing so is not without challenges.

Historically, a lot of emphasis was put on implementing automated solutions to achieve shift left within DevOps, while much of IT was forced to continue relying on manual troubleshooting and triaging. This made achieving shift left principles in NetOps and the Service Desk virtually impossible.

However, by adopting unified observability tools that enable automated remediation into their workflows, NetOps and Service Desk teams can achieve shift left to solve issues faster, reduce costs, improve service levels, and boost employee retention.

In this eBook, we explore the challenges facing NetOps and Service Desk teams, and reveal how the Riverbed Observability and Optimization Platform provides automated solutions to make shift left a reality.



The Problem with Manual Processes

NetOps and Service Desk teams are often stuck relying on conventional, manual processes when it comes to managing networks or troubleshooting IT problems. According to the IDC report "The Shift to Unified Observability: Reasons, Requirements, and Returns," 59% of IT Professionals reported that their organization's IT staff manually troubleshoots issues to identify root causes. The result is unnecessary time wasted in trying to identify the root cause of IT concerns, and escalating issues to senior IT staff.

This has a ripple effect that leads to an inability to shift left as well as a number of other bad outcomes including:

Reactive vs Proactive Problem Solving

Manually addressing every issue that arises is extremely time consuming. This time investment means you're always focused on solving the immediate problem, rather than working on strategic, forward looking initiatives that could proactively identify the root cause of the issue.

Inefficient Use of Talent

Often junior IT members don't have the experience necessary to resolve issues on their own and must turn to the tribal knowledge that rests in heads of senior staff for help, pulling them away from more strategic initiatives.

Unhappy Employees + Employee Churn

Due to the ongoing IT staffing shortage, it's difficult to hire enough professionals to perform manual resolutions. Relying on smaller teams inhibits companies from reaching their business objectives, because the team is pending all their time on low-level issues. It can also lead to increased attrition on the team as experienced team members quickly become dissatisfied continuously doing the same junior level work they've been doing for a decade.

Poor Customer Experiences

Manually solving issues is not only time-consuming for the IT team, it means much slower resolution times, decreased employee productivity, and poor digital experiences for both emloyees and customers.

"The conversation around IT operations has evolved and operations now support more complex distributed systems with many architectures, integrations, and dependencies. The unpredictability of these systems requires new automated detection, observability, and healing."

– Gartner®, Hype Cycle™ for Monitoring, Observability and Cloud Operations, 2021 Padraig Byrne and Pankaj Prasad, July 2021

Key Terms Defined

DevOps: The team responsible for managing development and operations across the entire software application life cycle. DevOps relies on practices and special tools (usually automated) designed to deliver applications and services faster than traditional software development processes.

NetOps: The team responsible for managing enterprise networks, which have historically used manual command-line interface (CLI) scripting and emphasized availability, as well as uptime, rather than flexibility. Successful NetOps departments incorporate automation and continuous integration and continuous delivery (CI/CD) to optimize operations.

Service Desk: The team responsible for assisting with incident resolution, as when a device or application isn't functioning the way it should. The Service Desk troubleshoots tech issues and tries to help users enjoy better digital experiences.

Shift left: In service management, a shift-left approach involves shifting incidents and requests to the lowest support tier possible, such as automatic remediation or junior staffers, so the senior IT pros can focus on high-level initiatives.

Current Monitoring Tools Hinder Shift Left

Monitoring should, ostensibly, help NetOps and Service Desk teams implement shift left practices by aiding in identifying potential problems. But the problem is the tools NetOps and Service Desk teams rely on are fraught with shortcomings that make their job harder rather than easier. The problems associated with these tools include:

Discrete, siloed functionality:

Tools are siloed, they may work well for a specific function, but they don't integrate well.

Too much data:

These tools produce their own data, adding to the overwhelming amount of data IT already contends with throughout their day.

Too much noise:

The data provides no context or few insights, forcing team members to try to make sense of the "noise." Often, staff must escalate issues to more senior professionals who can better connect the dots.

High mean time to resolution (MTTR):

Tech issues take too long to resolve, reducing productivity and impacting the bottom line.

Visibility gaps:

Current tools often use data sampling which leads to gaps in visibility. This is not good for performance monitoring and catastrophic for security. As a result, problems occur at a high level, where the causes are harder to identify and eradicate, making shift left impossible.

Unified Observability Leverages Automation to Make Shift Left Possible

Like current monitoring tools, most observability tools on the market similarly fail in delivering the features and functions necessary to help NetOps and Service Desk teams shift left. For example, many observability tools on the market are unable to deliver a full array of data on metrics, events, logs, and traces (MELT), as well as user experience data, network data, and device data – all factors that impact the overall quality of a digital experience. Plus, these tools often rely on data sampling rather than full-fidelity data, leading to holes in visibility.

Unfortunately, many of these tools are also designed for and limited to DevOps, SREs, cloud-native environments, or APM use cases, so they're not particularly useful for NetOps and the Service Desk. In addition, the tools deliver a constant barrage of alerts but with little context, leading to frustration and alert fatigue.

However, unified observability bridges the shortcomings of many monitoring and observability solutions by providing teams with the comprehensive view and automated workflows needed to both identify problems early and shift them to junior staffers, reducing the need for escalations. Unified observability **unifies** data, actions, and insights to present a complete, context-rich view within an IT ecosystem for faster resolutions. With unified observability, shifting left in NetOps and the Service Desk finally becomes possible.

What is full-fidelity data?

Full-fidelity data refers to any complete stream of raw unformatted, unstructured, and unprocessed data. It differs from sample data which contains only select packets of a data stream, leading to blind spots in visibility.

Riverbed Solutions for Shift Left

The Riverbed Observability and Optimization Platform enables shift left for NetOps and Service Desk Teams. It does this by leveraging AIOps to automate the investigation and remediation of common issues across the entire IT organization. These AI-powered correlations improve efficiency with faster problem solving while enabling junior staff to take on troubleshooting with automated workflows. Here's how:

Apply Intelligence to Problem Detection

With AI and ML-based correlation and analysis, Riverbed generates actionable insights to optimize problem detection. The solution applies 10,000+ correlations per minute across time series, devices, locations, and applications to provide more accurate insights than correlation based solely on time or keywords as most competitive solutions use.

Unlike rule-based products that are often improperly defined and applied to single metrics, Riverbed applies different models to different metrics using AI-powered baselining, thresholds, and change detection. These multi-factor correlations can reduce MTTR and enable NetOps and Service Desk teams to be more proactive about fixing issues before users notice the problem.

What it means for you: Better visibility and context-rich insights about your ecosystem, allowing NetOps and Service Desk teams to actually shift left problem resolution.

Democratize Knowledge through Scripted Investigations

Riverbed unleashes tribal knowledge, making it available to everyone. The solution codifies expert troubleshooting knowledge so junior IT staff can solve more problems without having to escalate to senior staff members.

Straight out of the box,Riverbed provides automated investigative workflows designed to replicate the best practices of expert IT teams. These pre-built functions gather evidence, build context, and set priorities to enable IT teams to save time, reduce escalations, and disseminate the expert knowledge among all IT. As a result, highly skilled staff can finally focus on high-value projects rather than troubleshooting. Additionally, Riverbed contains low-code/no-code functions that are customizable so additional functions can be created using a highly graphical, easy-to-use interface.

What it means for you: Senior staff no longer have to waste their time doing junior-level tasks. They can focus on spearheading strategic projects they actually enjoy, improving their satisfaction and overall employee retention rates.

Remediate Faster with Actionable Insights

No more manual processes. Riverbed's intelligent automation facilitates quicker resolutions without having to escalate to senior experts. With full-fidelity data, AI/ML, and automation, Riverbed® IQ delivers context-rich, filtered, and fix-first insights, ready for IT action. Obtain effective cross-domain collaboration and decision-making to accelerate MTTR, while reducing time spent in war rooms, finger-pointing, and excessive escalations.

What it means for you: Faster resolutions means less frustrations and better digital experiences for your employees and customers.

Improve Service Desk KPIs with Automated Remediation

Riverbed gives Service Desk teams the ability to develop automated remediation actions tailored specifically to individual IT run book processes, improving service and reducing operational cost.

What it means for you: Employees no longer have to contact the Service Desk. Automated recovery actions gets ahead of commonly expected issues and fixes them proactively, allowing employees to remain productive.

Improve MTTR and First-Level Resolution Rates

Riverbed enables the service desk to drill down into an issue with a single click. This optimizes investigations, making it easier to identify the root cause of a problem. The Service Desk can then use device health and performance data to remotely validate and troubleshoot issues without ever having to interface directly with the end user's device.

What it means for you: Improved MTTR means Service Desk achieves greater efficiency, allowing them to do more even when talent is in short supply.

Riverbed Automates Workflows

Riverbed uses AIOps to automate some of the manual processes NetOps and the Service Desk do the old fashioned way. At a time when IT talent is hard to find, the solution enhances the productivity of junior staffers by democratizing tribal knowledge, automatically identifying issues and resolving them. Senior staffers are freed to take on high-level projects that are a better use of their skills and help the organization achieve their business goals.

Riverbed Observability and Optimization Platform demo.

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Riverbed – Empower the Experience

Riverbed is the only company with the collective richness of telemetry from network to app to end user that illuminates and then accelerates every interaction so that users get the flawless digital experience they expect across the entire digital ecosystem. Riverbed provides two industry-leading solutions: the Riverbed Unified Observability portfolio, which integrates data, insights, and actions across IT to enable customers to deliver seamless digital experiences; and Riverbed Acceleration, which offers fast, agile, and secure acceleration of any application over any network to users, whether they are mobile, remote, or on-premises. Together with our thousands of partners, and market-leading customers across the world, we empower every click, every digital experience. Learn more at riverbed.com.

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